

Review: Late stages of protein secretion in bacilli

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Abstract

This review highlights the later stages of protein secretion in bacilli, which include protein release from the membrane and their translocation through the cell wall. Mechanisms of release of secreted polypeptides into the medium differ in Gram-positive and Gram-negative bacteria due to different structure of their cell envelope. Exogenous factors including molecular chaperons that can influence polypeptide folding may be also involved in later stages of protein secretion in bacilli. In Gram-positive bacteria protein secretion also depends on structural components of the cell wall. Certain evidence exists that maintenance of the secretory function is important for normal development of the sporulation process in these bacteria.

Keywords

Bacilli, Cell wall, FtsH-protease, Metal cations, PrsA-lipoprotein, Secretion, Sporulation